Technical Data Knowledge Management Integrated Data Environment (TDKM-IDE)

DII Project Kick-Off Brief

(Defense Information Infrastrucutre)

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Participating Agencies

- Naval Sea System Command (SEA92L1) – Deputy Project Manager
  - **NAVSEA-NSWCCD (2052), Carderock**
  - **Commander, Submarine Force, US Pacific Fleet (COMSUBPAC)**
  - **Submarine School, New London**

- NAVSEA-NSWCCD (94), Philadelphia
  - **NAVSEA-NSWCPHD, Port Hueneme**
  - **Program Executive Office Theater Surface Combatants (PEO-TSC)**
  - **Supervisor of Shipbuilding (SOS) Bath and Pascagoula**
  - **PMJCALS**

Participating Agencies (Cont.)

- Naval Air Systems Command (AIR3.3) – Deputy Project Manager
  - **Naval Aviation Depot, North Island**
  - **Naval Air Maintenance Training Group, Pensacola**
  - **Marine Corps Systems Command, Technical Documentation Branch**

- Industry Team Members
  - **Industry Representatives on NAVSEA Interclass Digital Library Working Group**
  - **AMSEC LLC (Newport News)**
  - **LLD, Inc.**
  - **XyEnterprise Inc.**
  - **Document Management Solutions Inc.**
  - **Computer Science Corporation (CSC)**
  - **PBM Associates, Inc.**

Project Objectives

- Deploy a Field Implementation of a Technical Data (TD) Knowledge Management (KM) System
  - **Actively manage & maintain deployed digital TD for operational units and users**
  - **Dynamically tailor TD for individual end user**

- **Define and Build a Replicable Integrated Data Environment (IDE) for TD Knowledge Management**
  - **common content management and control system architecture allowing for the management, versioning, and control of electronic documents**
  - **content manageable at information object level**
  - **provide uniform content management and knowledge distribution environment for all Navy**
  - **adaptable to other services**

TDKM-IDE
Technical Overview

- What is it?
- What is it intended to do?
- How does it work?
- Notional Overview
- Notional Implementation
- Improved Operational Capability
- Resulting Changes in Business Practices

TDKM - IDE
What is it?

- Prototype Data Environment for all Navy TD
- Installation & Load of Data into Common Content Management System
- Field Implementation of a Technical Data Knowledge Management System.

TDKM - IDE
What is it intended to do?

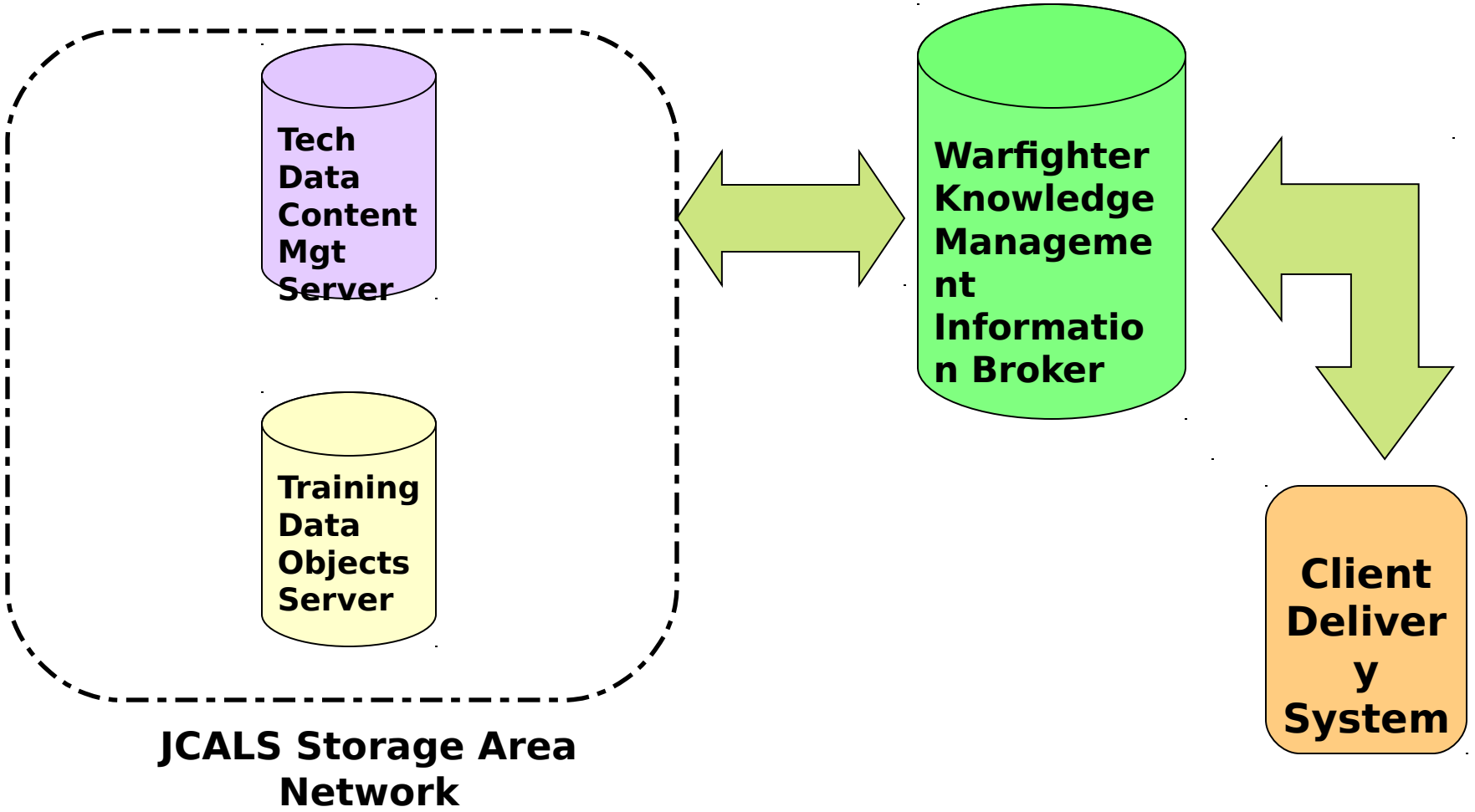
- Provide a Common, Replicable Integrated Data Environment (IDE) for Navy/DoD TD
  - **Common, Uniform TD Business Process**
  - **Uniform Content Management & Control Architecture**
  - **Common Metadata**
  - **Necessary XML Schemas & Style Sheets**
  - **Uniform Knowledge Distribution Environment**
- **Dynamically Tailor** and Maintain the Deployed Digital Technical Data for Both Operational Units and Individual Users

TDKM-IDE

How does it work?

- **Digital TD in Various Formats IACW Standards**
- **Tech Docs in XML and SGML (Migrating to XML)**
- **Management & Control at the Info. Component Levels**
- **Re-Purpose Data to Deliver Multiple Products**
- **Use Existing JCALS Regionalization System and SANS**
- ***Profiles* Describing Users' TD Requirements**
- ***Maps (or Indices)* to the Content Data in Stores**
- **Pull Necessary Data Objects From Distributed Content Management Systems**
- **Push Required Library or Update to the User Site and Individual**

TDKM-IDE Notional Overview


Tech Data Content Mgt Server
Training Data Objects Server
JCALS Storage Area Network
Warfighter Knowledge Management Information Broker
Client Delivery System

XML

Portal Software

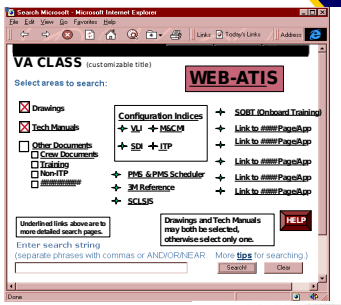
Warfighter Knowledge Manager

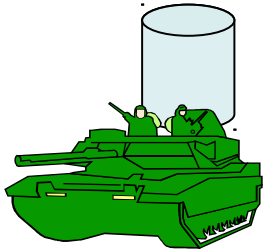
Tech Data Content Manager

XSL Rendered XML-HTML

Distance Support

NALCOMIS





NAVSUBSCOL

Fleet and Shore-based Information Access Interfaces

TDKM-IDE
Improved Operational Capability
Content Management

- More Efficient Change & Update Process
- Greatly Simplified Versioning
- More Efficient Configuration Management
- Reduced Cycle Times
- XML-Based - Portability over CM & Pub. S/W
- Cost Avoidance Due to Data Re-use
- Improved Data Protection

TDKM-IDE
Improved Operational Capability

Replicable Business Processes

- Common Service-wide Content Management
- Common Metadata for TDKM
- Uniform Store & Distribute Infrastructure - JCALS
- Re-use of Information at More Granular Level
- Faster, More Responsive, Change and Update
- Higher Quality Data and Documents Delivered to Ships

TDKM-IDE
Improved Operational Capability

Knowledge Management

- Timely, Accurate, and Readily Accessible Technical Data to Satisfy Operations, Maintenance, and Training Missions
- Dynamic, Tailored Distribution to User Activities and Individuals
- Web Access to Information Components

Success Criteria

- Production Content Management System Implemented at NAVSSES and NATEC
- Endorsement of Knowledge Management Portal Approach by Fleet Activity
- NLIB Approval of Recommended TDKM-IDE Logistics Processes and Supporting Technologies for Further Implementation

Work Breakdown Structure & Schedule

Principal Tasks

- Project Management
- Technical Data Content Management
- Technical Data Process Design
- TD Knowledge Management Design Concept
- User Knowledge Management Pilot System
- Final Report

Project Management

Deliverable	Primary Performer	Milestone Date
TDKM-IDE Program Management Plan	NSWCCD	25 July 2001
In Process Reviews	DCNO-N403 NSWCCD	10 April 2002
Project Status Reports	NSWCCD	Monthly
Demonstration of Project Capabilities	NSWCCD Technical Team	LCM Forum 2002

Technical Data Content Management

Deliverable	Primary Performer	Milestone Date
Conversion of TM Information Manager Database	NSWCCD SSES	Start + 10 Months
Enhanced Change Control and Effectivity Functionality	NSWCCD SSES	Start + 10 Months
Conversion of EOSS Information Manager Database	NSWCCD SSES	Start + 10 Months

Technical Data Process Design

Deliverable	Primary Performer	Milestone Date
Government Concept of Operations (GCO)	NAVAIR	Start + 6 Months
Business Model	NAVAIR	Start + 10 Months
Metadata Requirements for Technical Data	NAVAIR	Start + 6 Months
Content Management Database installation at North Island	NAVAIR	Start + 2 Months

TD Knowledge Management Design Concept

Deliverable	Primary Performer	Milestone Date
TDKM System Design	Team Submarine	Start + 6 months

User Knowledge Management Pilot System

Deliverable	Primary Performer	Milestone Date
Conversion and Data Selection to Support Pilot Operations	Team Submarine	Start + 9 Months
Pilot System Implementations at SUBPAC and NAVSUBSCOL	Team Submarine	Start + 11 Months
User Evaluation and Report	Team Submarine	Start + 12 Months

Final Report

Deliverable	Primary Performer	Milestone Date
Final Report	NSWCCD	Start + 12 Months

Participating Organizations

TDKM-IDE Is a Collaborative Project Among Air, Subsurface, Surface Organizations, and Industry

- Knowledge Management
  - NAVSEA [92L], NSWCCD [205], AMSEC, LLD
- Content Management
  - NSWCCD [94], PM JCALS, XyEnterprise
- Business Process
  - NAVAIR [3.3/3.6], PBM Associates
- Metadata Requirements
  - NAVSEA [92L], NSWCCD [205], PBM Associates
- Implementation
  - COMSUBPAC, NAVSUBSCOL, NAD North Island

Key Resources

Facilities

- Submarine Advanced Digital Technology Lab - NSWCCD [205] (Carderock)
- Navy JCALS Regional Nodes – NSWCCD [94] (Philadelphia), NATEC San Diego
- JCALS Storage Area Network (SAN) - NSWCCD (Phil)
- COMSUBPAC Pearl Harbor
- NAVSUBSCOL – New London

Key Resources

Tools

- XML, Internet Technologies, WWW
- Content@ - Content Management Software
- Knowledge Management System (tbd)
- Portal Software (tbd)

Interdependencies

- Projects
  - JCALS
  - JATDI
  - Web-Enabled Navy (WEN)
  - Virtual Submarine Program (VSP)
  - Distance Support
  - NAVAIR Style Sheets
  - NAVICP Conversion of Legacy Data
  - SPAWAR Coordination
- Management Process
  - Navy Logistics Integration Board Working Group (NLIB WG) will provide oversight